

ejer13 Secc2.1 Grossman2ed.

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Pruebe que, en general, no es cierto que $\det(A+B) = \det A + \det B$

solucion:

$$A = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}, B = \begin{pmatrix} 2 & 0 \\ 0 & 3 \end{pmatrix}$$

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| Sage Version 3.4, Release Date: 2009-03-11                |
| Type notebook() for the GUI, and license() for information. |
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Sage Version 3.4, Release Date: 2009-03-11
sage] A=matrix(QQ,[[1,0],[0,1]])
sage] A
      ( 1 0 )
      ( 0 1 )
sage] A.det()
      1
sage] B=matrix(QQ,[[2,0],[0,3]])
sage] B
      ( 2 0 )
      ( 0 3 )
sage] B.det()
      6
sage] A+B
      ( 3 0 )
      ( 0 4 )
sage] C=matrix(QQ,[[3,0],[0,4]])
sage] C
      ( 3 0 )
      ( 0 4 )
sage] C.det()
      12
sage]
```

podemos ver claramente que $12 \neq 6 + 1$, enotnces $\det(A+B) \neq \det A + \det B$